

Diffusion-controlling sensor layer

A b s t r a c t

The invention relates to a diffusion-controlling sensor layer for detecting the biological effect of substances consisting of a diffusion-controlling matrix and sensors suspended therein. The invention further comprises a method and an apparatus for the location-dependent detection of the biological effect of substances using the sensor layer according to the invention ("imaging" of the spatial distribution of biological activity). A further embodiment of the method according to the invention relates to the coupling of investigations of the biological activity of substances with chromatographic and electrophoretic separation techniques so that biologically active individual substances can be identified directly in mixtures. An additional embodiment of the method according to the invention comprises the direct combination of the detection of the effect via sensor layers with chromatographic and electrophoretic separation techniques which are in turn coupled to spectroscopic techniques. This close coupling of substance separation, detection of effect and spectroscopy directly provides results on the structure of the biologically active substances in a mixture of substances.